## ABSTRACT OF THE DISCLOSURE

A piezoelectric resonator includes a supporting substrate having an opening or a concavity, a vibrating section in which at least one pair of an upper electrode and a lower electrode oppose each other so as to sandwich an upper surface and a lower surface of at least one layer of piezoelectric thin film, the vibrating portion being formed over the opening or the concavity, and a heat dissipating film disposed over at least one of the upper electrode and the piezoelectric thin film so as not to cover the vibrating section.